

COC# 214

# CHAIN OF CUSTODY REPORT

Work Order #: M108004

11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244  
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776  
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132  
20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

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(509) 924-9200 FAX 924-9290  
(503) 906-9200 FAX 906-9210  
(541) 383-9310 FAX 382-7588


CLIENT: BRISTOL		INVOICE TO: BRISTOL												<b>TURNAROUND REQUEST in Business Days*</b> Organic & Inorganic Analyses <div>10 7 5 4 3 2 1 &lt;1</div> STD.      Petroleum Hydrocarbon Analyses <div>5 4 3 2 1 &lt;1</div> STD. <b>OTHER</b> Please Specify _____ <small>*Turnaround Requests less than standard may incur Rush Charges.</small>				
REPORT TO: ANNE KRANAWETTER		P.O. NUMBER: 21090																
ADDRESS: AMCHITKA, AK																		
PHONE: 907-770-0974 FAX: 770-0975																		
PROJECT NAME: AMCHITKA		REQUESTED ANALYSES																
PROJECT NUMBER: 21090																		
SAMPLED BY: KLP/ARK																		
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	Metals 7060, 1631	PCBs EPA 8082												MATRIX (W, S, O)	# OF CONT.	COMMENTS	NCA WO ID
1. OIAML A02RK	8/2/01 1425	X	X												O	2		
2. OIAML A03RK	8/2/01 1431	X	X												O	2		
3. OIAML A04RK	8/2/01 1445	X	X												O	2		
4. OIAML A05RK	8/2/01 1420	X	X												O	2		
5. OIAML A06RK	8/2/01 1425	X	X												O	2		
6.																		
7.																		
8.																		
9.																		
10.																		
11.																		
12.																		
13.																		
14.																		
15.																		
RELINQUISHED BY: Kyle Peterson		FIRM: BRISTOL				DATE: 8/2/01				RECEIVED BY: Craig Bradie				DATE: 8/2/01				
PRINT NAME: Kyle Peterson						TIME: 1603				PRINT NAME: Craig Bradie				TIME: 1603				
RELINQUISHED BY:		FIRM:				DATE:				RECEIVED BY:				DATE:				
PRINT NAME:						TIME:				PRINT NAME:				TIME:				
ADDITIONAL REMARKS: Sewage Lagoon Rocks																	TEMP: 11.6°	PAGE 1 OF 1



**Seattle** 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-9223  
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541.383.9310 fax 541.382.7588

7 December, 2001

Anne Kranawetter  
Bristol Environmental & Engineering  
2000 W International Airport C#1  
Anchorage, AK 99502-1116

RE: Amchitka

Enclosed are the results of analyses for samples received by the laboratory on 08/02/01 16:03. If you have any questions concerning this report, please feel free to contact me.

This report was recreated from a previously issued final report in order to provide an electronic copy. The final report used for these electronic copies may have been previously issued as an amended report due to client requested changes to sample names, etc. No data has changed since submission of the previously issued final, or amended, report.

Sincerely,

Stephen Wilson  
Environmental Group Leader

Work Orders included in this report:

**M108004**



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Bristol Environmental & Engineering  
2000 W International Airport C#1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Reported:**  
11/09/01 10:26

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
01AMLA02RK	M108004-01	Soil	08/02/01 14:25	08/02/01 16:03
01AMLA03RK	M108004-02	Soil	08/02/01 14:31	08/02/01 16:03
01AMLA04RK	M108004-03	Soil	08/02/01 14:45	08/02/01 16:03
01AMLA05RK	M108004-04	Soil	08/02/01 14:20	08/02/01 16:03
01AMLA06RK	M108004-05	Soil	08/02/01 14:25	08/02/01 16:03

C. O. C. # 214

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

1 of 7



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Bristol Environmental & Engineering  
2000 W International Airport C#1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Reported:**  
11/09/01 10:26

**Polychlorinated Biphenyls per EPA Method 8082**  
**North Creek Analytical - Mobile Lab**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMLA02RK (M108004-01) Soil</b>					Sampled: 08/02/01 Received: 08/02/01				
Aroclor 1016	ND	86.4	ug/kg dry	1	EPA 8082	08/03/01	08/03/01	0108009	
Aroclor 1221	ND	173	"	"	"	"	"	"	
Aroclor 1232	ND	86.4	"	"	"	"	"	"	
Aroclor 1242	ND	86.4	"	"	"	"	"	"	
Aroclor 1248	ND	86.4	"	"	"	"	"	"	
Aroclor 1254	ND	86.4	"	"	"	"	"	"	
Aroclor 1260	ND	86.4	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	116 %	55-130							
Surr: Decachlorobiphenyl	94.8 %	55-130							
<b>01AMLA03RK (M108004-02) Soil</b>					Sampled: 08/02/01 Received: 08/02/01				
Aroclor 1016	ND	86.8	ug/kg dry	1	EPA 8082	08/03/01	08/03/01	0108009	
Aroclor 1221	ND	174	"	"	"	"	"	"	
Aroclor 1232	ND	86.8	"	"	"	"	"	"	
Aroclor 1242	ND	86.8	"	"	"	"	"	"	
Aroclor 1248	ND	86.8	"	"	"	"	"	"	
Aroclor 1254	ND	86.8	"	"	"	"	"	"	
Aroclor 1260	ND	86.8	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	143 %	55-130							S-09
Surr: Decachlorobiphenyl	106 %	55-130							
<b>01AMLA04RK (M108004-03) Soil</b>					Sampled: 08/02/01 Received: 08/02/01				
Aroclor 1016	ND	81.2	ug/kg dry	1	EPA 8082	08/03/01	08/03/01	0108009	
Aroclor 1221	ND	162	"	"	"	"	"	"	
Aroclor 1232	ND	81.2	"	"	"	"	"	"	
Aroclor 1242	ND	81.2	"	"	"	"	"	"	
Aroclor 1248	ND	81.2	"	"	"	"	"	"	
Aroclor 1254	ND	81.2	"	"	"	"	"	"	
Aroclor 1260	ND	81.2	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	149 %	55-130							S-09
Surr: Decachlorobiphenyl	99.1 %	55-130							

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

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Environmental Laboratory Network

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Bristol Environmental & Engineering  
2000 W International Airport C#1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Reported:**  
11/09/01 10:26

**Polychlorinated Biphenyls per EPA Method 8082**  
**North Creek Analytical - Mobile Lab**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
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**01AMLA05RK (M108004-04) Soil**

Sampled: 08/02/01 Received: 08/02/01

Aroclor 1016	ND	83.1	ug/kg dry	1	EPA 8082	08/03/01	08/03/01	0108009	
Aroclor 1221	ND	166	"	"	"	"	"	"	
Aroclor 1232	ND	83.1	"	"	"	"	"	"	
Aroclor 1242	ND	83.1	"	"	"	"	"	"	
Aroclor 1248	ND	83.1	"	"	"	"	"	"	
Aroclor 1254	ND	83.1	"	"	"	"	"	"	
Aroclor 1260	ND	83.1	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	119 %	55-130							
Surr: Decachlorobiphenyl	84.0 %	55-130							

**01AMLA06RK (M108004-05) Soil**

Sampled: 08/02/01 Received: 08/02/01

Aroclor 1016	ND	88.4	ug/kg dry	1	EPA 8082	08/03/01	08/04/01	0108009	
Aroclor 1221	ND	177	"	"	"	"	"	"	
Aroclor 1232	ND	88.4	"	"	"	"	"	"	
Aroclor 1242	ND	88.4	"	"	"	"	"	"	
Aroclor 1248	ND	88.4	"	"	"	"	"	"	
Aroclor 1254	ND	88.4	"	"	"	"	"	"	
Aroclor 1260	ND	88.4	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	136 %	55-130							S-09
Surr: Decachlorobiphenyl	103 %	55-130							

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

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Bristol Environmental & Engineering  
2000 W International Airport C#1  
Anchorage, AK 99502-1116

Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Reported:**  
11/09/01 10:26

**Total Metals per EPA 6000/7000 Series Methods**  
**North Creek Analytical - Mobile Lab**

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
<b>01AMLA02RK (M108004-01) Soil</b>					Sampled: 08/02/01 Received: 08/02/01				
Mercury	<b>0.0376</b>	0.00500	mg/kg dry	1	EPA 1631	08/05/01	08/07/01	0108016	
<b>01AMLA03RK (M108004-02) Soil</b>					Sampled: 08/02/01 Received: 08/02/01				
Mercury	ND	0.00500	mg/kg dry	1	EPA 1631	08/05/01	08/07/01	0108016	
<b>01AMLA04RK (M108004-03) Soil</b>					Sampled: 08/02/01 Received: 08/02/01				
Mercury	<b>0.00626</b>	0.00500	mg/kg dry	1	EPA 1631	08/05/01	08/07/01	0108016	
<b>01AMLA05RK (M108004-04) Soil</b>					Sampled: 08/02/01 Received: 08/02/01				
Mercury	<b>0.0240</b>	0.00443	mg/kg dry	1	EPA 1631	08/05/01	08/07/01	0108016	
<b>01AMLA06RK (M108004-05) Soil</b>					Sampled: 08/02/01 Received: 08/02/01				
Mercury	<b>0.0133</b>	0.00500	mg/kg dry	1	EPA 1631	08/05/01	08/07/01	0108016	

North Creek Analytical - Mobile Lab

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Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Reported:**  
11/09/01 10:26

### Polychlorinated Biphenyls per EPA Method 8082 - Quality Control

#### North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 0108009 - 3545 ASE

##### Blank (0108009-BLK1)

Prepared & Analyzed: 08/03/01

Aroclor 1016	ND	150	ug/kg wet
Aroclor 1221	ND	301	"
Aroclor 1232	ND	150	"
Aroclor 1242	ND	150	"
Aroclor 1248	ND	150	"
Aroclor 1254	ND	150	"
Aroclor 1260	ND	150	"

<i>Surr: 2,4,5,6-Tetrachloro-m-xylene</i>	213	"	200	106	55-130
<i>Surr: Decachlorobiphenyl</i>	184	"	200	92.0	55-130

##### LCS (0108009-BS1)

Prepared & Analyzed: 08/03/01

Aroclor 1254	837	150 ug/kg wet	833	100	55-130
<i>Surr: 2,4,5,6-Tetrachloro-m-xylene</i>	220	"	200	110	55-130
<i>Surr: Decachlorobiphenyl</i>	186	"	200	93.0	55-130

##### Matrix Spike (0108009-MS1)

Source: M108005-01

Prepared: 08/03/01 Analyzed: 08/04/01

Aroclor 1254	1220	167	ug/kg dry	1270	ND	96.1	55-130
<i>Surr: 2,4,5,6-Tetrachloro-m-xylene</i>	318	"		305		104	55-130
<i>Surr: Decachlorobiphenyl</i>	247	"		305		81.0	55-130

##### Matrix Spike Dup (0108009-MSD1)

Source: M108005-01

Prepared: 08/03/01 Analyzed: 08/04/01

**Q-01**

Aroclor 1254	618	167	ug/kg dry	1270	ND	48.7	55-130	65.5	40
<i>Surr: 2,4,5,6-Tetrachloro-m-xylene</i>	163		"	305		53.4	55-130		
<i>Surr: Decachlorobiphenyl</i>	114		"	305		37.4	55-130		

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

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Project: Amchitka  
Project Number: 21090  
Project Manager: Anne Kranawetter

**Reported:**  
11/09/01 10:26

### Total Metals per EPA 6000/7000 Series Methods - Quality Control

#### North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 0108016 - EPA 1631

##### Blank (0108016-BLK1)

Prepared: 08/05/01 Analyzed: 08/07/01

Mercury ND 0.00500 mg/kg wet

##### LCS (0108016-BS1)

Prepared: 08/05/01 Analyzed: 08/07/01

Mercury 0.0101 0.00500 mg/kg wet 0.0100 101 85-115

##### Duplicate (0108016-DUP1)

Source: M107061-01

Prepared: 08/05/01 Analyzed: 08/07/01

**Q-06**

Mercury 0.0167 0.00500 mg/kg dry 0.0105 45.6 20

##### Matrix Spike (0108016-MS1)

Source: M107061-01

Prepared: 08/05/01 Analyzed: 08/07/01

**Q-01**

Mercury 0.0306 0.00500 mg/kg dry 0.0133 0.0105 151 75-125

##### Matrix Spike (0108016-MS2)

Source: M107061-02

Prepared: 08/05/01 Analyzed: 08/07/01

**Q-01**

Mercury 0.0249 0.00500 mg/kg dry 0.0130 ND 163 75-125

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6 of 7





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**Reported:**  
11/09/01 10:26

### Notes and Definitions

Q-01 The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.

Q-06 Analyses are not controlled on RPD values from sample concentrations less than 5 times the reporting limit.

S-09 Surrogate recovery is outside control limits due to matrix interference.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.

wet Sample results reported on a wet weight basis (as received)

RPD Relative Percent Difference

North Creek Analytical - Mobile Lab

Stephen Wilson, Environmental Group Leader

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### Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			Default Report (not modified)
			Report recreated from: \\sisters\elmnt\Report\M108004 FINAL 11 09 01 1026.mdb
0108009-MSD1	8082 PCB	Aroclor 1254	Exceeds RPD limit
0108009-MSD1	8082 PCB	2,4,5,6-Tetrachloro-m-xylene	Exceeds lower control limit
0108009-MSD1	8082 PCB	Aroclor 1254	Exceeds lower control limit
0108009-MSD1	8082 PCB	Decachlorobiphenyl	Exceeds lower control limit
0108009-MSD1	8082 PCB		Q-01
0108016-DUP1	Hg Total CVAf 1631	Mercury	Exceeds RPD limit
0108016-DUP1	Hg Total CVAf 1631		Q-06
0108016-MS1	Hg Total CVAf 1631	Mercury	Exceeds upper control limit
0108016-MS1	Hg Total CVAf 1631		Q-01
0108016-MS2	Hg Total CVAf 1631		Q-01
0108016-MS2	Hg Total CVAf 1631	Mercury	Exceeds upper control limit
M108004-02	8082 PCB	2,4,5,6-Tetrachloro-m-xylene	S-09
M108004-02	8082 PCB	2,4,5,6-Tetrachloro-m-xylene	Exceeds upper control limit
M108004-03	8082 PCB	2,4,5,6-Tetrachloro-m-xylene	S-09
M108004-03	8082 PCB	2,4,5,6-Tetrachloro-m-xylene	Exceeds upper control limit
M108004-05	8082 PCB	2,4,5,6-Tetrachloro-m-xylene	S-09
M108004-05	8082 PCB	2,4,5,6-Tetrachloro-m-xylene	Exceeds upper control limit